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APPLICANT: TOSHIBA CORP;

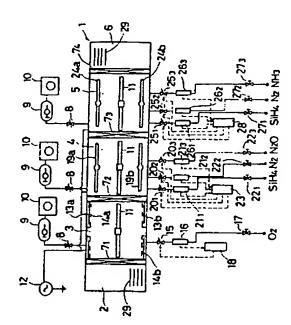
INVENTOR: SHOROKU TAKESHI;

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TITLE

FILM FORMING DEVICE



ABSTRACT: PURPOSE: To prevent the generation of the adsorbed layer and contaminated layer on the surface of an ashed substrate and to form a good-quality film by integrally providing an ashing chamber before a plasma CVD chamber.

> CONSTITUTION: The ashing chamber 3 is integrally provided before the plasma CVD chambers 4 and 5. In the film forming device, a substrate 29 is conveyed into the ashing chamber 3 from a loading chamber 2 through a substrate cart 11, and ashed by RF electrodes 14a and 14b connected to an RF power source 12. The resist residue, movable ions, etc., are removed thereby, the cleaned substrate 29 is moved successively into the plasma CVD chambers 4 and 5 through a gate valve 72 to form the coating films of SiOX, SiNX, etc., and then the substrate is introduced into an unloading chamber 6. Consequently, the ashed substrate 29 is not exposed to the atmosphere, and a high-cleanliness and high-quality film having good adhesion and with the adsorbed layers of hydrocarbons and oxides reduced to the utmost is formed.

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